



A Solution to Water Quality

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Part I: Overview of Business

- Created by the County Conservation Law of 1955
- Oversees 20 parks and wildlife areas
- 13,400 acres of space that are visited by over 1.8 million people each year.
- Its mission is to provide quality outdoor recreation, conservation education, and long term protection of Polk County's natural heritage.

Part II: Job Specifics

- Test water quality and look for benthic invertebrates at their testing sites
- Transition reporting from DNR's Iowater site to EPA's Water Quality eXchange
- Revise assessment forms and create training videos for water quality monitoring

Part III: Introduce the Problem

- Our city is growing and needs to find an additional source of water to meet its needs.
- Test various water samples from different locations around the city for certain characteristics to see if they are a possible location for a new water supply.

Part IV: Background

- Used in our solutions unit, students will be learning about solubility.
- Use of benthic invertebrates brings a biological component, students have to think about living organisms.
- Need to research how different chemicals found in the water affect humans and the cost of removal will affect their choice of water sites.

Part V: Business Solution

- PCC's WQ testing creates a baseline for certain chemicals in the Polk County waterways and identifies when outliers occur.
- A member of a Water Works organization could be a reference.

Part VI: Student Solutions

- Goal is to have students create a solution based off severity of contaminants and cost of removal.
- Looking for no certain answer of water source, but can students argue their response based off their data.